Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PROCEEDINGS OF THE SECOND ANNUAL MEETING OF THE WESTERN PHILOSOPHICAL ASSOCIATION, HELD AT CHICAGO, IN JOINT SESSION WITH THE AMERICAN PSYCHOLOGICAL ASSOCIATION, ON DECEMBER 31, 1901, AND JANUARY 1, 1902.

Report of the Secretary for 1901.

THE second annual meeting of the Western Philosophical Association took place at the University of Chicago, December 31, 1901, and January 1, 1902, in joint session with the American Psychological Association. Five sessions were held, two general, one experimental, and two philosophical, in addition to the business meeting of each society. Professor Royce and Professor Thilly presided alternately at these meetings. The Western Philosophical Association was strongly represented, both in number of members in attendance, and on the program.

At the business session, it was decided to hold the next meeting of the Association at Iowa City, at such date as the Executive Committee may determine. The following officers were elected for the ensuing year: President, Frederick J. E. Woodbridge, University of Minnesota; Vice-President, Arthur Allin, University of Colorado; Secretary-Treasurer, A. Ross Hill, University of Nebraska. G. T. W. Patrick, University of Iowa, and Frank Thilly, University of Missouri, were made members of the Executive Committee.

Thirteen new members were elected, and the Executive Committee was authorized to add to the list of members during the ensuing year the names of such persons of recognized standing in philosophy as might express a desire to become members.

The secretary was authorized to publish proceedings of the meeting, and to distribute copies among the members. The report of the treasurer showed a balance of $7.50 cash on hand, but the dues for 1901 had not been collected from many of the members.

A. Ross Hill,
Secretary-Treasurer.

ABSTRACTS OF PAPERS.

The Theory of Induction. By FRANK THILLY.

Some writers distinguish between scientific induction and unscientific induction, but regard both as forms of induction (Bacon, Mill, Veitch, Lotze, Wundt). Others reject the unscientific form or simple enumeration, and accept only that phase of induction which derives from particular facts the law of their necessary connection (Sigwart, Ueberweg, Bosanquet, Shute, Hamelin, Hibben, Creighton). Of these, some identify induction with scientific methods in general, including the forming of hypotheses, deducing their consequences, and verifying them (Sigwart, Jevons in *Principles of Science*, Hamelin). According to some thinkers, only so-called perfect induction is certain; imperfect induction is merely probable. Nearly all agree, however, that induction is grounded on the principle of the uniformity of nature. This principle is interpreted differently by different thinkers, and sometimes called merely by another name. Some speak of it as the principle of identity (Lotze, Kromann, Bosanquet). Some express the same idea by saying the particular is the expression of the universal (Aristotle, Hegel). Some call the principle the principle of necessary connection; the given is necessary (Sigwart, Ueberweg, Hibben, Welton, Creighton). Some identify it with the law of causation (Mill, Jevons, Veitch, B. Erdmann). Moreover, the principle of uniformity is conceived by some as a postulate of our thinking (Sigwart, Lotze, Kromann, Bosanquet, Hibben, Welton, Creighton), by others as the product of experience (Mill, Jevons, B. Erdmann).

The author's conclusions are: (1) Hasty and imperfect induction is just as truly induction as scientific induction. (2) Induction is not limited to the discovery of causal relations. (3) Induction does not discover only the inner necessary relations of things. (4) Induction must not be identified with scientific method in general, for this includes both induction and deduction. The logical thing to do is to restrict the term 'induction' to the process of inferring a general truth from particular instances, and to use another name for the combination of this process with deduction. (5) It is not true that we base ourselves on the principle of the uniformity of nature in induction, that is, that inductive inference is really deduction. Induction consists in making the so-called inductive leap, which must be regarded as a natural function of the mind. The principle of uniformity is a late product, the result of induction and not its ground.

The Idealism of Spinoza. By F. J. E. WOODBRIDGE.

Although the system of Spinoza is based on the recognition of an order of finite, individual things, as opposed to an order of infinite realities, and on the identification of this second order with God, the significance of his philosophy is found rather in the relation he conceives to hold between these two orders. For Spinoza, God can become the real good of man, only as God and man stand related in a way that necessarily involves this good; but this relation can be but one instance of that general relation, which holds between the world of individuals and the world of eternal truth. This relation has quite generally been interpreted as one of identity, and thus Spinoza's system becomes in its essential character pantheistic. This view is supported by many explicit statements of Spinoza, and yet they are generally so qualified that we seem forced to conclude, that the identification of the order of individuals with God can be made only by distinguishing radically different points of view, which cannot logically be brought together. The pantheism thus becomes illogical and mystical.

This conclusion is often thought to exhaust the significance of Spinoza's system, but further inquiry serves to indicate that this estimate is superficial. The qualifications which hedge about the identification of God with the actual, constitute in reality the outlines of an idealistic theory of knowledge. There we find the distinction made with great clearness between the material and the form of knowledge. It is pointed out that individuals can never be *deduced*, and that consequently knowledge of them can never be adequate, Kant would say *objective*, but that knowledge through concepts, *per definitionem*, is adequate. It is further insisted that the only reality which we can be said to know thus adequately and objectively, is reality as constituted according to principles which have adequate and objective validity. The object of the first book of the *Ethics* is thus to bring out the conclusion, that if we are to speak of any objective reality at all, it can only be that without which nothing can exist objectively or be conceived. Still further, the impossibility of deducing individuals from the nature of this reality, an impossibility upon which Spinoza repeatedly insists, gives to the individual a position logically exterior to the form of adequate knowledge, and thus the ontological position which it has in the great idealistic systems. These propositions constitute a thoroughly idealistic theory of knowledge, even if not worked out with that completeness which in later hands it attained. They involve the conclusion that the objective world is never the given, but always the constructed, a construction, in the light of which experience may take on the form of science, and conduct be justified of its ends.

The Objective Conditions of Thought. By W. M. BRYANT.

The subjective aspect of the theme presents two phases: (1) The primary unity of consciousness; (2) the empirical multiplicity in consciousness. To speak of a "multiple consciousness," is to make use of a self-contradictory form of expression. Only as one, can consciousness know itself as having many phases. Elements of experience can have no existence save as phases in the actual experiences of an individual as a concrete living whole. Consciousness is generic, generative; and its generative acts are: (1) as intellectual, acts of self-definition; (2) as volitional, acts of self-differentiation; (3) as emotional, acts of self-appreciation. The whole is a process at once of self-analysis and of self-synthesis.

Only unitary consciousness is capable of experience. But through its empirical activity individual consciousness becomes aware of contradiction in its experience. To account for this fact, thought, as the unifying function of consciousness in its unitary character, is driven to infer the existence of some sort of reality beyond the individual and empirically developing consciousness. The activities of the latter are seen to bear the character of responses to external stimuli. That is, through experience, the individual conscious unit discovers itself to be energy-putting-forth-effort, *i. e.*, will—the 'experience' having the form of felt resistance to such effort. Consciousness proves to be not merely contemplative, but purposive, also. But consciousness can interpret such facts only in terms of itself. Self-analysis proves consciousness to be thinking will. The necessary inference of thought is: that whatever offers opposition, stimulus, to consciousness must in its ultimate nature be thinking will also.[1] Only thus can the world really be comprehended. It is idle to speak of a world fundamentally alien to the self as thinking will; since with such world the self could have no relation whatever, and hence could attain no knowledge concerning it. The only world I can know is a world comprehended by and in thought. The objective conditions of my thought, then, can be nothing else than a world which presents in concrete realization the whole system of thought which by my nature as thinking will I am ever striving to render explicit in my own individual being. My nature, therefore, is not merely 'parallel' with that of the world; the two natures are fundamentally one and the same. Thought can rest in nothing short of this ultimate spiritual monism. Self-synthesis, world-synthesis, synthesis of the self with the world—such is the threefold task which thought sets and must set for itself. In its ultimate nature thought is not outwardly conditioned but self-conditioned.

Plato's Fundamental Concepts. By THOMAS M. JOHNSON.

Plato was the greatest of all philosophers. Philosophy is not a mere farrago of thoughts, guesses, and fancies, but is the appetite for and mastery of the Science of First Principles. It does not concern itself with the temporal and sensuous, but deals solely with the permanent and essential. If one wishes to master the Platonic philosophy, he must make the study of it his life's vocation. Among Plato's fundamental concepts are: (1) His idea of the nature of philosophy and the characteristics of the true philosopher. The vital importance of philosophic insight and practice is shown by the statement that unless rulers become philosophers, or philosophers become rulers, there will be no end of evils for the human race. (2) The essential distinction between knowledge and opinion—one of the most valuable insights in the history of thought. (3) That the soul is the true man, and that the body is merely an instrument which the soul uses during its material environment. That the soul is immortal and eternal in its essence, and exists as a self-conscious entity prior to its descent into the world of time and sense. (4) The doctrine of ideas or eternal paradigms. Ideas are the stable pillars of all truth, and the prolific principles of the universe. Without them there could be no such thing as science; nor, indeed, any real knowledge at all.

---

[1] In my volume, *The World-Energy and its Self-Conservation* (Baker & Taylor, N. Y.), I have attempted the interpretation of the world as an expression of mind.

The true interpreters of Plato are his genuine disciples, and chiefly those falsely named "Neo-Platonists"—Plotinus, Porphyry, Proclus, Damascius, and the other "refulgent links" of the golden chain of the Platonic Succession. The claims of these philosophers to be the legitimate successors of Plato cannot be intelligently controverted. Greek, the most perfect of all instruments of thought, was their native language, and they knew all its intricacies and phases; all the writings of Plato, and of his immediate disciples (many of which are now lost), were familiar to them; a trustworthy traditional knowledge of his method and oral teachings was in their possession; and, finally, they made the study and interpretation and practice of the Platonic philosophy a life-long vocation.

Plato's Literary Art as a Method of Philosophy. By J. D. Logan.

Hitherto men have regarded Plato as one who was by nature chiefly a poet, and then by influences of environment a philosopher; and who thus effects a union of the intellect and the imagination—of science and religion. Caring little, it is said, for logic or logical methods as such, Plato exploits his literary or poetical gifts for the impassioned presentation of the truth. Indeed Plato is the first and the greatest occidental metaphysician; Aristotle, the first logician. These opinions, however, are in no wise justified by a study of Plato's genius, or of the development of his philosophical system. His literary art, his poetical idealism, is indeed a necessary expression of his artistic genius ; but it is also a necessary expression of his philosophical genius. It is not a play of art simply for its own sake; it is rather a very methodical artifice, or a method of philosophy. For Plato, as we see him working from the Socratic to the strictly dialectical dialogues, actually constructs, before Aristotle, the ideal of scientific method, and a large number of the formulæ of instrumental logic. But conscious as he is, even to his latest days, of the inadequacy of his powers and data for building a strict system of metaphysics, he veils the defect of true knowledge and the defect of his own method in poetry and mysticism. His literary art is artifice; his poetical idealism, a *tour de force* in agnosticism (natural, not philosophical). Of all this there are numerous proofs. The general proof is the fact that Plato when pressed to solve by his method a concrete physical or cosmological problem, even in the strictly dialectical dialogues, side-tracks the question, changes the subject, or refers his interlocutor, vaguely, to some more sublimated method of discovering the truth, which he himself, at the moment of questioning, cannot exploit. As regards apprehending ultimate reality, Plato must remain merely poetical, mystical—which is but a mode of agnosticism.

The Nature of Time. By JOHN E. BOODIN.

The Epistemological Limitations of Ethical Inquiry. By NORMAN WILDE.

The study of ethics rests upon certain logical principles, common to it with the other sciences, which determine the nature of its problems and its method of explanation. (1) No science has to prove the existence of its own subject matter, but assumes it as part of the common experience of the race, its problem being the understanding of a given material, which it neither constructs nor deduces, but finds. So ethics has not the task of deducing or constructing morality, but of analyzing and interpreting an actually given moral experience, whose reality is a matter of fact, not of theory. (2) No special science has to prove the possibility of knowledge about its material, but approaches it directly, under the supposition that such knowledge is possible. The scientific problem is to find what is the actual law of any given set of phenomena, not as to whether there *is* such an intelligible law. Similarly, ethics has no need to raise the problem of the intelligibility of moral experience, but may proceed at once to the investigation of the assumed moral cosmos. It is no greater assumption, and no less necessary, that we live in a common world of ends, than that we live in a common world of objects. As rational beings, we act upon the supposition that there is an ideal order of experience, discoverable by thought, both in the spheres of fact and of value, a supposition without which there would be neither knowledge nor conduct. (3) All explanation consists in the exhibition of the common principle involved in any set of particular instances, by means of which these instances are shown as members of a systematic whole. Scientific concepts are the symbols in which the unity in experience is expressed, and must bear definite relation to the experience to be explained, varying with each change in the subject-matter studied. Distinct kinds of experience demand distinct sets of explanatory symbols. Moral experience consists of judgments of a better and worse in conduct, and its spirit is not the scientific judgment that A is the cause of B, but the moral judgment that A is better than B. Ethical explanation must consist in the exhibition of the system of such judgments, and its symbols must be those of value and not of fact. The concept of casuality has no more significance for ethics than has that of obligation for physics. Scientific method in ethics, therefore, though it consists of observation and analysis of actual moral experience, involves the use of explanatory concepts other than those of causality.

Pleasure, Idealism, and Truth in Art. By GEORGE REBEC.

It did not, of course, require Ruskin to show that art admits of the untruth of semblance, fiction. Even here, however, just as in science, a law of parsimony holds sway. Fiction must not be gratuitous ; departure from commonplace actuality must not go beyond the requisites of effectively showing forth that essential truth

—truth of principle, type, idea—which is the proper object of art. Yet is it so? How about pleasure as the end? Evidently the coupling of these two equally usual demands of truth and pleasurableness is logically possible only to an optimistic philosophy. Otherwise, the demand for truth must admit the alternative of the non-committal, or the downright sceptical or pessimistic standpoints, in the æsthetic as well as in the philosophic sphere. As a matter of fact, the merely pleasant, *which is not believed to be true*, will not really please at all; because art is not a gratification, so to speak, of the higher animal, but a satisfaction—it may well be a melancholy one—of the sense of reason in us.

Connected with the belief that art must be pleasant, is that of its ideality. As a selecting and holding to the significant, all cognition is an idealization. In the common usage, however, idealism means a conformity of things to our highest or *absolute* standards. In this sense, clearly, the Hardys, Ibsens, and Zolas are not idealistic. Granting that the artist, to be an artist, is obliged, like the philosopher, *to take an attitude towards the ultimate demands of the mind*, yet as regards the *gratification* of those demands, why should he not be allowed the latitude of a Comte, Schopenhauer, or Hume, who still are recognized as genuine philosophers? Surely it is a poor species of the beautiful that would be content to be ranked as a narcotic. In the idealism of art, as in the pleasurableness, truth is insisted on.

How does truth comport with idealism? As expressions of a subjective need, ideals reveal at least something of the truth of the nature of the subject that puts them forth; so that an art even of absolute affirmations must always possess a certain real truth; as likewise it must retain always a certain serious import. The latter will it especially keep for us, if we believe the artistic to be the final mode of expression, *i. e.*, that the development of mind is not from perception to reflection, but from a primitive perception, through reflection, to a mature, reflection-mediated perception.

We can go a step further. In addition to this 'subjective' truth, our monistically-tempered later philosophy would contend that art is able also to achieve some measure of *indirect* objective truth. This because the mind is itself but a manifestation of the one Universe, and what throws light on the former, helps likewise to interpret the latter. But may we advance further still, and claim for art the possibility of *direct* objective truth—of direct (essential) reality in the objects themselves which it portrays? Kant would divide ideals, in the ordinary meaning in which we use the term, *i. e.*, subjective norms applied to things, into the finite and objectively verifiable, as, for example, the 'Categories,' and the infinite, absolute ones, such as God, Freedom, and a completely teleological World, which he sets down as objectively not verifiable. Assuming the correctness of this division, we can still say that it is surely the latter sort that at least haunt in mood and suggestion all notable art. Are they futile, so far as finding for them a place among 'things' is concerned?

Not many will carry scepticism to the length of denying that either philosophy or art is able to apprehend real phases or factors in some sort of the absolute truth of things. Is there, nevertheless, such a thing as a stage of truth fulfilled and fully cognized—such a thing, even, as a completely unfolded and completely known system of categories, essential structural outlines of reality? If, with orthodox Hegelians, we answer affirmatively to the mere extent of assenting to a definitely limited body of categories, definitely mastered, obviously there is no reason why we should not grant the ideals of great art the possibility of an absolute finality and an absolute objective verity. But suppose that we look upon the universe as literally inexhaustible, not simply as regards the infinite multiplicity of its 'contingent' particulars, but equally as to the wealth of 'essential' principles which it is capable of disclosing? The case, of course, is not bettered if we do not believe that reality ever can be exhausted in categories, generalities, ideals, art, or any other finite mode of theory, because all involve abstraction, while out of the despised limbo of 'contingency' and residual phenomena left over after abstraction, are always rising to sight new categories and a new history. And suppose now, lastly, that our doubting reaches a greater length still, in that we cannot feel an unconditional objective cogency in necessity of a merely inner, or moral, or subjective, or any other type divorced from *demonstration*, in the literal sense of *showing forth*, in the world of outer experience; while at the same time we do hold that, over and above all (in this sense) demonstrable ideals, the mind keeps always and irresistibly positing such supreme ideals as God, freedom, and a total world, which, nevertheless, in their last reaches, are ever turning out subjective and indemonstrable; or while, indeed, we hold it to be of the very nature of all ideals to have this indemonstrable residuum, if so we may call it, which, accordingly, like all subjective contents, is constantly liable to revision, correction, and illusoriness. In these circumstances, plainly, the ideality of art—its high vision of the ought-to-be—is not a conclusively true vision, but subject to revision and renewed attempts at demonstration, with the attendant opportunities for renewed doubt or occasional not altogether silly despair over the possibility of demonstration at all. And hence the recurrent opportunities, too, for artistic expressions, not of optimism solely, but of agnosticism, scepticism, and blank negation. The artist-mind, no less than the philosophic, may doubt or repudiate its own idealism.

The Psychology of Play. By ARTHUR ALLIN.

Play may be regarded from three standpoints, viz., Origin, function, and aim.

As to origin, plays may be: (1) Manifestations of instinct or of incomplete instincts (impulses); (2) adult ancestral occupations adapted and modified to suit the child mind; (3) present-day social occupations adapted to suit the child's capacities; and (4) adult social occupations performed with pleasure and with the spirit of mastery. In contradistinction to the doctrine of Groos, the plays of the three last divisions may be in nature acquired rather than hereditary, educational rather than instinctive. These plays are based on habits acquired *de novo*, although in some cases they may be associated with instinctive impulses. A number of examples are cited of each class of play.

As to function, play includes all activities performed with pleasure and the spirit of mastery. Traditional play-forms may at times be most distasteful work and strain. The opposite of play is hard, joyless work—a *via dolorosa* with nothing but a cross in view. The less self-illusion and deception, and the more business-like attitude there may be in play the better.

As to the aim or importance of play, some play activities are pathological or unsocial, such as gambling, waiting for something to turn up. In general, however, play is an initiation into social practices and habits, and thus possesses a survival- or selection-value. Habits are formed which later may be switched off and attached to other objects and aims needful in the social life of the adult. The house being built may for a time be occupied by the masons and carpenters, but these strange guest-builders soon give place to the tenants for whom the house was originally intended. Throughout play runs the great principle of vicarious stimulation. From the sociological standpoint, the stimuli are comparatively unimportant; the reactions are all-important for the future. Some play activities are, however, recuperative in nature, others are diversional (old people, for instance, "putting in the time"), and others again are instances of Aristotelian *katharsis.*

Play derives great importance, biologically and sociologically speaking, from its connection with the law of increase of plastic endowment; for it eliminates the rigidity of instinctive life and organizes new social habits, thus developing adjustability to a future very complex environment. The terms "instinct of play" and "instinct of imitation" are to be criticised. Individual, concrete reactions of such and such nature, some inherited and some acquired, are to be substituted for these general and misleading terms.

A Method of Measuring Mental Work. By C. E. Seashore.

Can mental work be measured? If so, will such measurements have much value for psychology? These two questions were intrepreted and answered in the affirmative in the first part of the paper. Then followed a description of the 'psychergograph,' and explanation of various methods of using it.

In designing the psychergograph, the investigator had set himself the following aim: To devise a means by which one can (1) call forth a relatively simple and definite complex of mental activity; (2) repeat the same demand for any length of time, without interruption ; and (3) measure, (*a*) the amount of work done, (*b*) the time taken, (*c*) the quality of the work, and (*d*) fluctuations in speed and quality. To denote the work that may be measured, this setting is a typical illustration : Given one of four known signals, to recognize it and make the corresponding one of four simple responses. The apparatus consists of two distinct parts, the stimulator and the recorder. The stimulator exposes signals, the order of which is determined by chance. The response to one signal calls forth the next, by an electric device, and this may be continued without interruption as far as it proves desirable. The recorder makes a continuous record on telegraph tape showing what response was made to each signal and the duration of each act. From the experimenter's point of view, the operation is completely automatic. He has only to press a button to start the recorder and give the signal to begin. The personal equation of the experimenter is, therefore, completely eliminated. The records are permanent, and may be read at leisure. This machine record is supplemented by full notes both by the experimenter and the observer. The psychergograph is a foot rule, as it were. Its record by itself means nothing, just as a foot of an unknown substance has no meaning, but in the hands of an intelligent experimenter it acquires significance.

All the complications of the usual reaction experiment may be introduced, and then there is the additional possibility of long continued repetition of similar processes without interruption. The bodily movement is reduced to a minimum and constant quantity. The record shows, first, the number of a particular kind of acts performed, second, the time required for each act and for the whole series, and third, a quantitative expression for the quality of the work in terms of the number of errors and the classification of errors. The relativity of such measurements was fully recognized.

The Duration of the Auditory After-Sensation. By MAX MEYER.

The first attempt at measuring the auditory after-sensation was made by Alfred M. Mayer in 1874, with seemingly good success. The result was that the duration of the after-sensation was inversely proportional to the vibration frequency. In 1898 another method was employed by Abraham. His result was that the duration of the after-sensation was constant, *i. e.*, entirely independent of the vibration frequency. One of the two methods, therefore, must be fundamentally wrong.

Mayer's method was this (neglecting various smaller modifications): The tone was produced by a tuning fork and conducted through a tube to the ear of the observer. The tube was intersected by a disk with a row of openings, so that at rotation of the disk the tone was heard intermittently; but when the velocity of rotation was sufficiently increased, the tone appeared smooth, because—as Mayer assumed—the after-sensation was as long as the interval between two short tones.

Abraham used an entirely different method. The tone was produced by a siren, of which alternately a number of holes in a row were open and closed. At first glance, it seems possible in this case also to increase the velocity of rotation until the interval between two beats is as short as the after-sensation, when the tone should be smooth. However, the tone will never be smooth in this case, as the intensity of each beat does not abruptly begin and end, but rises and falls in a certain manner. A series of such rising and falling (in intensity) tones cannot appear as a smooth tone, unless the fall of each preceding and the rise of each succeeding tone be perfectly symmetrical, which is quite improbable. Under these circumstances, we cannot make use of smoothness in order to measure the after-sensation. Abraham, therefore, used a siren with two rows of holes, producing two different tones and being so arranged that one tone was sounded while the other paused, and *vice versa*. Then, at rapid rotation of the siren, a trill is heard, but when the pauses are filled up by the after-sensation, no trill is heard but two simultaneous tones. The unavoidable roughness is then without any consequence. The result of this experiment was that the after-sensation is constant, *i. e.*, independent of the pitch.

The wrong method is the one used by Mayer. That the tone becomes smooth when the rotation is rapid enough, is not caused by the pauses being filled up by the after-sensation, as Mayer assumed, but by an entirely different condition. When the rotation of Mayer's disk is rapid enough, one vibration will pass through unobstructed, the next one will be weakened by the disk ; and so on alternately. Then, of course, the tone sensation cannot be alternately strong and weak : two impulses at least (in a higher tone region a few more) are physiologically necessary for the production of a tone sensation. If one of these two is great and the other small, not a succession of a strong and a weak tone is heard, but a single tone of invariable intensity. There is no cause at all for a fluctuation of intensity, and the tone is smooth ; but no duration of an after-sensation is measured by this.

We now also comprehend Mayer's—unfounded—assertion that the duration of the after-sensation was inversely proportional to the vibration frequency. If we take a tuning fork an octave higher, and wish to let one vibration pass through the tube unchanged, the next one weakened, etc., we have of course to increase the velocity of rotation twice ; but this does not permit any conclusion as to the duration of the after-sensation in the case of this higher tone. In other words, this seemingly beautiful method of Mayer turns out to be no method at all.

A Biological View of Perception. By THADDEUS L. BOLTON.

The inapplicability of the old categories of psychology to modern experimental and comparative methods is generally recognized. The purpose of this paper is to revise one of them in the light of some ideas borrowed from biological study. Much that enters into the perception of an object has been overlooked. The older psychologists, proceeding by the method of analysis, have penetrated only so far as to discover the elements contributed by the direct afferent currents initiated by the object presented. These are the most obvious, as well as most superficial elements. The active part of perception needs to be emphasized, the part which arises through the reaction of the organism upon the object. When we trace perception down in the animal scale to its earliest beginnings, we find it gradually fading into automatic and instinctive performances. Perception reduced to its lowest term is an act, and as such, it is synonymous with instinct and emotion. Objects that arouse no instinctive or emotional response are perforce unperceived by animals. Even in man this acting in view of objects still enters largely into the perception of them. Perception is, therefore, an attitude toward objects. Beginning, as perception does, in instinctive performance, percepts must be regarded as more or less refined emotions.

History of Philosophy and Introduction to Philosophy in the College Curriculum. Discussion opened by Pres. JOHN H. MACCRACKEN.

In teaching philosophy to the average college student, we have three ends in view : first, discipline and development of the mental powers ; second, to give that knowledge which in the words of Windelband is a necessary requirement not only for all scholarly education but for all culture whatever, since it teaches how the conceptions and forms have been coined in which we all in everyday life think and judge the world of our experience ; and third, to lead the student to philosophize, to raise the ultimate questions, and thus to enter upon the noblest activity of his manhood. The first aim is accomplished more or less successfully in the courses on logic, psychology, and ethics, and the second by the courses on the history of philosophy. But the third aim is in danger of not receiving sufficient attention. Metaphysics has been crowded out of psychology and ethics. The modern tendency is to treat these subjects as sciences, and the student no longer finds here an introduction to philosophy proper. The appearance of courses and text-books on introduction to philosophy indicate a recognition of the want, and an attempt to supply it. Is a course of introduction the best solution ? Three doubts suggest themselves. First, if we are seeking to furnish an encyclopædia of philosophy we run the risk of disgusting the student with philosophy because serving it up in its driest possible form. There is as much difference between such a bare outline of philosophical problems, and the works of a philosopher like Descartes or Locke, as between a brief history of the world and a good historical novel. Second, there is danger of developing the superficial type of mind, which is already too common, which knows books by the book-reviews, and reads the news by the headlines, which may be said to know about rather than to know. Third, introductions to philosophy are rather philosophies of philosophy than philosophy. It is futile for an author to claim absolute impartiality. Better acknowledge with Paulsen that before finishing we must exhibit our system. Would not perhaps a careful study of some one author be preferable? Thus Jonathan Edwards began by reading Locke's *Essay*. Professor Sigwart of Tübingen gives to beginners the advice: "Read Hume, read Hume, read Hume."

Professor Caldwell, of Northwestern University, pointed out that the Scotch universities gave that very training in metaphysics which was lacking in the American curriculum. Professor Rebec described the course in the introduction to philosophy, as given at the University of Michigan; and Professor Royce described the course in philosophy as given at Harvard, and said that it was still regarded as tentative. He expressed doubt as to whether a study of a single system or of some one philosophic masterpiece would be very profitable for the average student. The history of philosophy should be treated as a part of the history of culture.

MEMBERS OF THE WESTERN PHILOSOPHICAL ASSOCIATION.

Professor Arthur Allin, University of Colorado, Boulder.
Chancellor E. Benjamin Andrews, University of Nebraska, Lincoln.
Mrs. Florence Winger Bagley, 3123 South Jefferson Avenue, St. Louis, Mo.
Dr. Wm. Chandler Bagley, 3123 South Jefferson Avenue, St. Louis, Mo.
Professor F. E. Bolton, University of Iowa, Iowa City.
Dr. Thaddeus L. Bolton, University of Nebraska, Lincoln.
Professor John E. Boodin, Iowa College, Grinnell, Iowa.
Dr. John F. Brown, University of Iowa, Iowa City.
Rev. John R. Brown, 2501 Peerey Avenue, Kansas City, Mo.
Dr. W. M. Bryant, Webster Groves, St. Louis, Mo.
President E. B. Craighead, Central College, Fayette, Mo.
Professor Frederick W. Ellis, Washburn College, Topeka, Kan.
Professor Charles A. Ellwood, University of Missouri, Columbia.